Apr 14, 2014

#### HURON CASTING, INC. 7050 HARTLEY ST. PIGEON, MI, 48755 Physical and Chemical Certification Report

1 of 1

**Customer:** 

ASSOCIATED PILE & FITTING ATTN: ACCOUNTS PAYABLE P.O. BOX 1264 CLIFTON, NJ, 07012-1264

**PILE POINTS** 

Part Number: 77600-B 14"46#

PO Number:

Job: 939

Packing Slip:

Specification: ASTM A148 90-60

Qty: 100

NOTE: N/A

Co	ate ode	С	Р	S	Cr	Ni	Al	Si	Mn	Мо	Ti	Zr	Cu	٧	B.H.	Yield P.S.I.	Tensile P.S.I.	Elonga tion	Red Area	DI	Charpy
D0341 R4 Serial #'s: <	46 <na></na>	0.255	0.011	0.006	0.048	0.029	0.033	0.502	1.129	0.022	0.033	0.022	0.035	0.007	197.	67037.		23.4	58.3	1.08	<na></na>
D0342 R4 Serial #'s: <	The second second	0.260	0.013	0.006	0.047	0.028	0.041	0.529	1.059	0.021	0.034	0.030	0.037	0.010	207.	68063.	92187.	25.4	63.5	1.06	<na></na>

We certify the material was 100% made, melted, manufactured, sampled, tested in the USA and inspected in accordance with the specification and was found to meet the requirements.

Jan Mc Intons

Dan McIntosh, QA Manager

# Steel Dynamics®

**CERTIFIED MILL TEST REPORT** 

Customer # 000076

Bill to: JD FIELDS

P.O. Box 134401 Houston TX, 77219 US Attn: Alice Perez

Ship to: Custo

(260) 625-8100 (260) 625-8950 FAX

Quality Steel 100% EAF Melted
and Manufactured in the USA

Recycled content: PC = 83%, PI = 13.3%
ISO 9001:2008 and ABS Certified

JD FIELDS c/o Aliquippa Terminals 100 Woodlawn Road Aliquippa PA, 15001 US Attn: Janet Davis

**GENERAL INFORMATION** SPECIFICATIONS SHIPMENT DETAILS BOL # 0000285837 - 32040.00 lbs Product H-Piling Standards Grades Bundle / ASN # Length pcs Cust PO | Recv PO | Job Size HP14X89 ASTM A6/A6M - 12 021802149 60' 0" STK-55928 HP 360 x 132 » ASTM A572/A572M - 12 A572 gr50/gr345 021802151 60' 0" 2 STK-55928 GUILFORD Heat Number B084140 ASTM A709/A709M - 11 A709 gr50/gr345 021802147 60' 0" STK-55928 AASHTO M270M/M270 - 11 As-Rolled M270 gr345/gr50 Condition(s) Fine Grained ASTM A992/A992M - 11 A992 / A992M Fully Killed ASTM A36/A36M - 08 A36 / A36M No Weld Repair CSA G40.21-13 50W/350W CHEMICAL ANALYSIS (weight percent) C Mn S Si Cu Ni Cr Mo Sn Nb/Cb N \*C2 \*C3 \*PC Analysis Type .066 1.24 .019 .024 .23 26 .10 11 .033 .011 .044 <.001 .003 .0104 .0003 .37 .34 .32 .17 5.42 Heat **MECHANICAL TESTING** CHARPY IMPACT TESTS (available only when specified at time of order) Yield (fy) Tensile (fu) Temp Absorbed Energy Strength Strength fy / fu % Elong. Specimen 1 F/C Test Specimen 2 Specimen 3 Average Minimum ksi / MPa ratio Test ksi / MPa {8" gage} 1 1 58 / 399 72 / 495 .81 25 2 2 58 / 403 72 / 498 .81 3 26 3 4 5 6 7 \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, C3, PC), Corrosion Index (I) [ (ASTM G101)= 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)-7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu²) CE1 {IIW}=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE2 {AWS}=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE3 {CET}=C+(Mn/6)+(Si/24)+(Cr/5)+(Ni/40)+(Mo/4)+(V/14) Pcm{AWS}=C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+V/10+5B I hereby certify that the material described herein has been made to the applicable **ABS CERTIFICATION** specification by the electric arc furnace/continuous cast process and tested in accordance with the requirements of American Bureau of Shipping Rules with satisfactory results. Signed: I hereby certify that the content of this report are accurate and correct. All tests and State of Indiana, County of Whitley Sworn to and subscribed before me operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements. this \_\_\_\_\_ day of Yurv Krotov Signed: My commission expires: Signed: Form F-6100-002-054 rev 7 Manager of Product Quality and Process Improvement

Printed: 04 / 10 / 2014

Produced: 03 / 22 / 2013

## Steel Dynamics, Inc. Structural and Rail Division . Columbia City, Indiana

(260) 625-8100 (260) 625-8950 FAX

**Quality Steel 100% EAF Melted** and Manufactured in the USA

Recycled content: PC = 92.1%, PI = 5.7% ISO 9001:2008 and ABS Certified

### **CERTIFIED MILL TEST REPORT**

Ship to: Customer # 000076 **ALIQUIPPA TERMINALS (HP)** 

100 Woodlawn Road Aliquippa PA, 15001 US Attn: Jim Brown

Bill to: JD FIELDS

P.O. Box 134401 Houston TX, 77219 US Attn: Alice Perez

Printed: 05 / 21 / 2013 Produced: 03 / 22 / 2013

	OF NET AND AND AND CONTROL OF THE AND																			
GENERAL INFORMATION         SPECIFICATIONS           Product         H-Piling         Standards           Size         HP14X89         ASTM A6/A6M - 12           HP 360 x 132         "> ASTM A572/A572M - 12           Heat Number         B084138         ASTM A709/A709M - 11           Condition(s)         As-Rolled         AASHTO M270M/M270 - 11           Fine Grained         Fine Grained         ASTM A36/A36M - 08           Fully Killed         ASTM A992/A992M - 11										SHIPMEN	T DET	AILS	Е	3OL # 00	00284796	6 - 31150.00 lbs				
Product H-Piling Standards									Grade	S		Bundle /	ASN#	Lengt	h nce	pcs Cust PO   Red		Pocy PO Lich		
Size HP14X89 ASTM A6/A6								50.0			<u>Orauo</u>	_		021802		50' 0"	2		Keca FO   Job	
_		HP 36	0 x 132		» A			A, 1772),			A572 gr50/g	r345		→ 021802	50' 0"				GUILEDRO	
Heat No	ımber								3, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,				021802204		50' 0"	1	The same of the sa		00/050	
					AASHTO M270M/M270 -								ì	The second second second		50' 0"	4	STK-55928 STK-55928 / G		GUILGORD
								70 (* 1			A36 / A36	•				50' 0"	4	STK-55		
F. W. Zili d								A992 / A99			021802202 50 0			1	S1K-00	928				
No Weld Repair CSA G40.21-04									44W/300V											
CHEMI	CALA	MALVO	IC (woigh	t noroor	.4\						11117000									
	100 CTC+C		(weigh																	
_C_	Mn	Р	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	Al	N	В	*C1	*C2	*C3	*PC	*	Analysis Type
.075	1.24	.018	.021	.22	.28	.08	.11	.037	.011	.043	<.001	<.001	.0088	.0005	.35	.38	.33	.18	5.56	Heat
MECHA	NICAL	TESTI	NG																	
	Yield	(fy)	Tensile	(fu)				Cha	rpy Im	pact Te	ests (avai	lable onl	y wher	n specified	at time	of orde	r)			
	Stren		Stren		fy / f	fu %	6 Elong.	.   т	emp	Absor	bed Energ	y ft-lbf/	J				• 10			
Test	ksi / M	/iPa	ksi / M	1Pa	ratio		8" gage}		F/C	Specir	-	ecimen 2		cimen 3	Average	M	inimum			
1	58 / 3	99	69 / 4	74	.84	-	25									_		=		
2	58 / 4	00	70 / 4	86	.82		24													
3								ı												
4																				
Notes:	*Calculated	Chemistry V	'alues: Carbor	equivale	nts (C1, C2,	C3, PC),	Corrosion Ind	ex (I)												
	CE1 {IIW}=0 I {ASTM G1	C+Mn/6+(Cr 101}= 26.01(	+Mo+V)/5+(Ni 'Cu)+3.88(Ni)+	+Cu)/15 +1.20(Cr)+	CE2 (AWS)= +1.49(Si)+17.	C+(Mn+Si .29(P)-7.29	i)/6+(Cr+Mo+ )(Cu)(Ni)-9.10	V)/5+(Ni+C )(Ni)(P)-33.3	u)/15 <b>CE</b> 3 39(Cu²)	8 (CET) = C	+ (Mn/6) + (Si/24)	+ (Cr/5) + (Ni	/40) +(Mo/	4) + (V/14) Pc	n{AWS} = 0	+Si/30+Mn/2	0+Cu/20+	Ni/60+Cr/20	)+mo/15+V/1	10+5B
											ΔRS	CERTI	FICAT	ION						
specifica	tion by the	e electric	arc furnace	/continu	ious cast p	orocess a	and tested	in accord	lance		7,0	OLIVII	IIOAI	1014						
with the I	equireme	nts of Am	erican Bure	au of Sl	hipping Ru	ıles with	satisfactor	y results.	•											
Signed	:																			
3 4												e of Indi	ana C	ounty of W	hitley S	Sworn to	and s	ubscrib	ed hef	ore me
											Olai	o or mar	ana, o	ounty or vi	macy c	WOIII to	ana s	abount	ou boil	ore me
		material	specification	ons and	applicable	e purcha	ser design	ated			this			day of						
requireme	ents.																			
Signed	:		Y	ur	y Kı	rot	OV				Sign	ied:				N	/ly con	nmissio	n expire	es:
Form F-6100	-002-054 rev	<sub>v 6</sub> Mana	ger of Prod	duct Qu	ality and F	Process I	Improveme	ent					Not	tary Public			,			
		ACTA	1 46 146	· A alan	oturo io no	t roomile	d on the t			. 41			.c							

## Steel Dynamics, Inc: Structural and Rail Division . Columbia City, Indiana

(260) 625-8100 (260) 625-8950 FAX

Quality Steel 100% EAF Melted and Manufactured in the USA

Recycled content: PC = 92.1%, PI = 5.7% ISO 9001:2008 and ABS Certified

GENERAL INFORMATION

Product H-Piling

CERTIFIED MILL TEST REPORT Customer # 000076

Ship to: **ALIQUIPPA TERMINALS (HP)** 

100 Woodlawn Road Aliquippa PA, 15001 US Attn: Jim Brown

Standards

**SPECIFICATIONS** 

Bill to: JD FIELDS

SHIPMENT DETAILS

P.O. Box 134401 Houston TX, 77219 US Attn: Alice Perez

Bundle / ASN # Length pcs

Printed: 05 / 21 / 2013 Produced: 03 / 22 / 2013

BOL # 0000284796 - 13350.00 lbs

Cust PO | Recy PO | Job

Size HP14X89 ASTM A6/A6M - 12 021802205 50' 0" 1 STK-55928 HP 360 x 132 » ASTM A572/A572M - 12 A572 gr50/gr345 021802206 50' 0" STK-55928 GUIL EORD Heat Number R084139 ASTM A709/A709M - 11 A709 gr50/gr345 021802202 50' 0" STK-55928 Condition(s) As-Rolled AASHTO M270M/M270 - 11 M270 gr345/gr50 Fine Grained ASTM A36/A36M - 08 A36 / A36M Fully Killed ASTM A992/A992M - 11 A992 / A992M No Weld Repair CSA G40.21-04 44W/300W CHEMICAL ANALYSIS (weight percent) C Mn S Si Cu Mo Nb/Cb Analysis Type .065 .020 022 22 1.25 12 .028 .012 044 <.001 .002 .0100 .0003.32 16 5.79 Heat **MECHANICAL TESTING** Charpy Impact Tests (available only when specified at time of order) Yield (fy) Tensile (fu) Strenath Strength % Elong. Temp Absorbed Energy ft-lbf / J fy / fu Test ksi / MPa ksi / MPa ratio {8" gage} F/C Specimen 1 Specimen 2 Specimen 3 Average Minimum 1 57 / 391 70 / 481 .81 25 2 58 / 397 71 / 492 .81 28 3 Notes: \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, C3, PC), Corrosion Index (I) CE1 {IIW}=C+Mn/6+(Cr+Ma+V)/5+(Ni+Cu)/15 CE2 {AWS}=C+(Mn+Si)/6+(Cr+Ma+V)/5+(Ni+Cu)/15 CE3 {CET} = C + (Mn/6) + (Si/24) + (Cr/5) + (Ni/40) + (V/14) Pcm{AWS} = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+V/10+5B I {ASTM G101}= 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)-7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu<sup>2</sup>) I hereby certify that the material described herein has been made to the applicable ABS CERTIFICATION specification by the electric arc furnace/continuous cast process and tested in accordance with the requirements of American Bureau of Shipping Rules with satisfactory results. Signed: I hereby certify that the content of this report are accurate and correct. All tests and State of Indiana, County of Whitley Sworn to and subscribed before me operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated this \_\_\_\_\_ day of requirements. Yury Krotov Signed: My commission expires: Form F-6100-002-054 rev 6 Manager of Product Quality and Process Improvement ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Page 2 of 2

Grades



**CERTIFIED MILL TEST REPORT** 

Customer # 000076

Bill to: JD FIELDS

P.O. Box 134401 Houston TX, 77219 US Attn: Alice Perez

Ship to: JD FIELDS

c/o Aliquippa Terminals 100 Woodlawn Road Aliquippa PA, 15001 US Attn: Janet Davis

ISO 9001:2008 and ABS Certified

Recycled content: PC = 92.1%, PI = 5.7%

(260) 625-8100 (260) 625-8950 FAX

Quality Steel 100% EAF Melted

and Manufactured in the USA

GENER	RAL IN	FORM/	ATION	;	SPECIF	ICATIO	ONS							SHIPME	NT DET	AILS		3OL # 00	00285219	9 - 74760.00 lbs
Pr	oduct	H-Piling				-	andards				Grade	8		Bundle /					Recv PO   Job	
	Size	HP14	X89			war and Sanson	\6/A6M - 1	Taur			Orauc	3	02180		60' 0'				Kecv PO   Job	
			60 x 132		» ASTM A572/A572M - 12						A572 gr50/g	r345		02180		60' 0'		1077/02/03/03/03/03		
Heat Nu	mber	B0841					09/A709M		A709 gr50/gr345					- 02180		60' 0'				GUILLORD
Condition(s) As-Rolled				1			270M/M27									60' 0"		OTT COOLS		, 00100000
Fine Grained								E			A36 / A36	No. of the last of		021802317 021802318				STK-55928		
Fully Killed					ASTM A36/A36M - 08 ASTM A992/A992M - 11						A992 / A99			02180		60' 0'		STK-55	35:6:652 	
No Weld Repair					,,,,		340.21-04				44W/300V			02180		60' 0' 60' 0'		STK-55		
OUEN	041.41	NIA I MO	10 / 11		en.	00/10	340.21 04	W	•		4477300	, v		02100	2323	60 0	2	STK-55	928	
CHEMI	CHEMICAL ANALYSIS (weight percent)																			
C	Mn	_P_	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	Al	N	В	*C1	*C2	*C3	*PC	*	Analysis Type
.075	1.30	.016	.020	.25	.24	.06	.12	.028	.009	.044	<.001	<.001	.0107	.0005	.35	.39	.34	.18	5.18	Heat
MECHA	MECHANICAL TESTING																			
	Yield	(fy)	Tensile	e (fu)				Cha	rpy Im	pact To	ests (avai	lable onl	ly wher	n specified	l at time	of orde	er)			
	Streng		Stren		fy / 1	u %	Elong.	.   Т	emp	Absor	bed Energ	y ft-lbf/	J							
Test	ksi / M	/iPa	ksi / N	ЙPа	ratio		B" gage}	1	F/C	Specir		ecimen 2		cimen 3	Average	N	linimum			
1	60 / 4	13	75 / 5	515	.80		24							-		_		-		
2	63 / 43	32	76 / 5	523	.83		26													
3								-												
4																				
			/alues: Carbo																	
	CE1 {IIW}=0 I {ASTM G1	C+Mn/6+(Cr 101}= 26,01	+Mo+V)/5+(N (Cu)+3.88(Ni)	li+Cu)/15 i+1.20(Cr)	CE2 (AWS)= +1.49(Si)+17.	C+(Mn+Si 29(P)-7.29	)/6+(Cr+Ma+ (Cu)(Ni)-9.10	V)/5+(Ni+Ci (Ni)(P)-33.3	u)/15 CE3 39(Cu²)	{CET} = C	+ (Mn/6) + (Si/24)	+ (Cr/5) + (N	i/40) +(Mo/4	4) + (V/14) Po	m(AWS) = 0	C+Si/30+Mn/	20+Cu/20+	Ni/60+Cr/20	+mo/15+V/	10+5B
			rial descri								ARS	CERTI	FICAT	ION						
			arc furnace								,,,,,,	OLIVII	110/11	1014						
with the r	equireme	nts of Am	erican Bur	eau of S	hipping Ru	les with	satisfactor	y results.	•											
Signed																				
			ent of this r								Stat	e of Indi	ana, C	ounty of V	Vhitley S	Sworn to	and s	ubscrib	ed befo	ore me
**		100	material n																	
requireme		material	specificati	ons and	applicable	: purcnas	ser design	ated			this	-	(	day of _						1321
1. 4			V		. 12	rat	01/													W <del>.</del>
Signed	·				y Kı						Sign	ned:					My com	nmissio	n expire	es:
Form F-6100	-002-054 rev	<sub>v 6</sub> Mana	ager of Pro	duct Qu	ality and F	rocess I	mproveme	ent					Not	tary Public						

Printed: 05 / 26 / 2013

Produced: 03 / 22 / 2013

В.			WEL	_DING P	ROCE	DURE	NO.	V-001	SHEET: 1				
l H	RENAUD BRO		DATE:	4/8/2014	PROJE	CT NAME							
	VERNON VI. C	ISA	BY:	A. DUNKLEE	PROJE	CT NO.	BRO 14						
283 FT. BRIDG	MAN RD. VERNON V	Л., 05354	AWS CO	DE:	PQR R	EF. NO:	N/A	12(00)					
PH. (802)257-	-7383 FAX (802)257 MATERI	-7306 IAL SPECIF	ICATION:	ASTM 709	GR. 36-5	0	,						
		VELDING P		SMAW									
MANUAL, S	SEMI-AUTOMAT	TC OR AUT	ГОМАТІС:	MANUAL									
	١	WELDING P	OSITION:	1G									
	FILLER MET	AL SPECIF	ICATION:	ANSI/AWS	A5.1-A5.5								
	FILLER META	AL CLASSIF	ICATION:	E7018									
			FLUX:	N/A									
		SHIELDII	NG GAS:	N/A		FLO	W RATE:	N/A					
		R MULTIPL		MULTIPLE									
_		OR MULTIP		SINGLE				I APPRO	DVAL STAMP				
4 M		ELDING CL		DC				- 7					
10:57:14		VELDING PO NG PROGR			ELECTRODE POSITIVE  N/A								
410	WELDI			,	LL IMPURITI		1.17	_					
-2	AT & INTERPA	ROOT TRE		$\geq 1\frac{1}{2}$ "=70°F 1		<u> </u>  -							
, FNENE		THEAT TRE		N/A	2 -22 -130	22 -2251	_						
.01.dw	1 03		INPUT:	MIN: N/	A MAX	: N/A		1					
	ELE	CTRODE ST		N/A	1 110 0	·   _ /		-					
PASS	ELECTRODE	WELDING	CURREN	IT TRAVEL	IOINI	TDE	T / 11 ·		PA DILE DOINT				
NO.	SIZE:	AMPS	VOLTS	SPEED	OOIIV			MP 14XC	39 PILE POINT				
ADURES:  NOTES:	3/32" 1/8"	70-110		ADJUST AS REQ.		4	5.0						
GRIND	WELD SIZE— 5 ALL BURRS, SRADE: A572—:	ENSURE F	LUSH PC	DINT FIT.	A- VARIES	∤ ADJUS (ADJUS)	A <b>∤</b> Γ PREHEAT	TEMP_AS	s REQ.)				

В.	RENAUD BRO	OS INC	WEL	DING P	PRC	CED	URE	NO. RB-F	W-001	SHEET: 2 OF 4
K	STEEL SALES & F.		DATE:	4/8/2014		PROJECT	NAME:	GUILF	ORD	
	_		BY:	A. DUNKLEE	E	PROJECT	NO.	BRO 1	442(36)	
283 FT. BRIDG	MAN RD. VERNON V -7383 FAX (802)257	/T., 05354 -7308	AWS CO	DE:	1	PQR REF	. NO:	N/A		
(002)207	•	IAL SPECIF	ICATION:	ASTM 572	2 GR.	50				
		VELDING P		SMAW						
MANUAL,	SEMI-AUTOMAT	TC OR AUT	OMATIC:	MANUAL						
	1	WELDING P	OSITION:	ALL						
	FILLER MET	AL SPECIF	ICATION:	ANSI/AWS	A5.1-	-A5.5				
	FILLER META	AL CLASSIF	ICATION:	E7018						
			FLUX:	N/A						
		SHIELDII	NG GAS:	N/A			FLOW	/ RATE:	N/A	
	SINGLE O	R MULTIPL	E PASS:	MULTIPLE			'	•		
	SINGLE (	OR MULTIP	LE ARC:	SINGLE						
A	V	ELDING CL	JRRENT:	DC					APPRO	OVAL STAMP
57:14	٧	VELDING PO	DLARITY:	ELECTRODE	E POS	ITIVE				
0 0	WELDI	NG PROGR	ESSION:	N/A						
2014		ROOT TRE	ATMENT:	REMOVE A	ALL IM	PURITIES	& GAL	.V.		
<sup>∞</sup> PREHE	EAT & INTERPA	ASS TEMPE	RATURE:	$\geq 1\frac{1}{2}$ "=70°F 1	$\frac{1}{2}$ " $-2\frac{1}{2}$	"=150°F	OVER 2	2 <mark>1</mark> "=225°l	-	
₩ġ,	POS	THEAT TRE	ATMENT:	N/A						
001.4		HEAT	INPUT:	MIN: N/	⁄Α	MAX:	N/A			
- FW	ELE	CTRODE ST	TICKOUT:	N/A						
PASS NO.	ELECTRODE SIZE:	WELDING AMPS	CURREN VOLTS	T TRAVEL SPEED	J(	TMIC	DE	TAIL:	HP 14X89	PILE CAP
ee\Documents\WorkDocuments\WELDING PROCEDUR  **ABA STATE OF THE O	3/32" 1/8"	70-110 70-170		ADJUST AS REQ.	-	5."	5."			A A
NOTES: PILE CA GRIND S	TERIAL TO BE NP SIZE: 1"X14 SURFACES FLA	A572 GR. 1"X14" T AND SM	50 DOTH PR	IOR TO				A_	$\downarrow$	

A- VARIES (ADJUST PREHEAT TEMP AS REQ.)

WELDING



## WELDING PROCEDURE

NO.

SHEET:

SPLICE DETAIL

3 OF

DATE: 4/8/2014 PROJECT NAME:

**GUILFORD** 

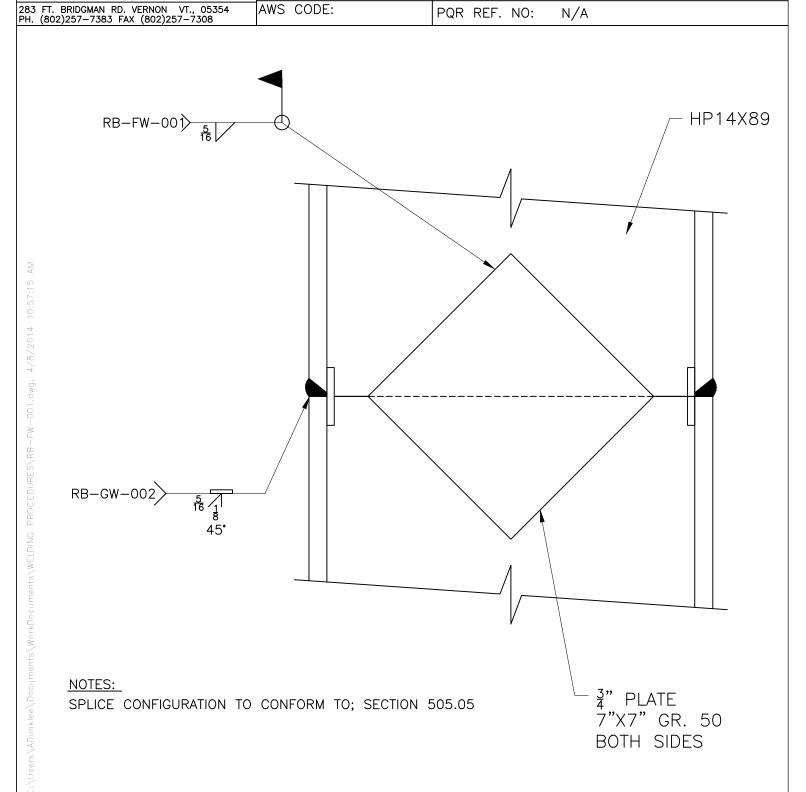
BY:

A. DUNKLEE

PROJECT NO.

BRO 1442(36)

AWS CODE: N/A PQR REF. NO:



В.	RENAUD BRO	OS. INC.	WEL	DING F	PRC	CEC	URE	NO.	W-002	SHEET:	4 / OF 4
K	STEEL SALES & FA		DATE:	4/8/2014		PROJECT	NAME:	GUILF	ORD		
	_		BY:	A. DUNKLEE	<u>-</u>	PROJEC <sup>-</sup>	Г NO.	BRO 14	142(36)		
283 FT. BRIDG PH. (802)257-	MAN RD. VERNON V -7383 FAX (802)257	Л., 05354 —7308	AWS CO	DE:		PQR RE	F. NO:	N/A			
	MATERI	IAL SPECIF	ICATION:	ASTM 572	GR.	50					
	V	VELDING PI	ROCESS:	SMAW							
MANUAL, S	SEMI-AUTOMAT	IC OR AUT	OMATIC:	MANUAL							
		WELDING P		2G							
	FILLER MET			ANSI/AWS	A5.1	-A5.5					
	FILLER META	AL CLASSIF		E7018							
			FLUX:	N/A							
		SHIELDIN		N/A			FLOW	RATE:	N/A		
		R MULTIPL		MULTIPLE							
-		OR MULTIPI		SINGLE					APPRO	/AL STAMF	)
D AM		ELDING CL		DC						.,,,,	
10:57:15		VELDING POOR		ELECTRODE N/A	_ POS	SITIVE			_		
410:	WELDI	NG PROGR		REMOVE A	1.118	ADI IDITIC	- 0a CAL	,	_		
	AT & INTERPA	ROOT TRE							_		
PREME		THEAT TRE		N/A	2 -2	<u> </u>	OVER 2	2 -2231			
1.dwg	F03		INPUT:	MIN: N/	Δ	MAX:	N/A		_		
	ELE	CTRODE ST		N/A		141/-//.			_		
PASS	ELECTRODE	WELDING						· \     •	 	DII E	CDLIOE
NO.	SIZE:	AMPS	VOLTS	SPEED		OINI		AIL:	HP 14X89	PILE	SPLICE
SEQ.  SEQ.	3/32" 1/8"	70-110 70-170		ADJUST AS REQ.		45					
ALL MAT	ERIAL TO BE PENING- 1/8' BACKING STR	" MIN.	50		A-	VARIES	(ADJUST	A PREHEA	T TEMP AS	REQ.)	